

What is Claimed:

- Pub. PA1
1. An assembly for sealing an opening, the assembly comprising:
a seal having opposite first and second surfaces, a seal opening positioned on the seal for passage of an object through the seal opening, a wall projecting outwardly from the seal first surface and extending around the seal opening defining a cavity within the wall and adjacent the seal opening;
5 and,
a sealant positioned in the cavity sealing the seal opening.
 2. The assembly of Claim 1, wherein:
the seal is constructed of a resilient material that enables the seal opening to be stretched around an object passed through the seal opening.
 3. The assembly of Claim 1, wherein:
the sealant is positioned only within the wall defining the cavity.
 - Pub. PA2
 4. The assembly of Claim 1, wherein:
the seal opening is centered within the wall.
 5. The assembly of Claim 1, wherein:
the seal opening is the only opening through the seal within the wall.
 6. The assembly of Claim 1, wherein:
the seal opening is circular and the wall is circular and concentric with the seal opening.
 7. In a device that seals between an electric motor and a conduit enclosure attached to the motor and that seals around leads of the motor that

pass through a motor lead opening of the motor and an enclosure lead opening of the conduit enclosure, an improvement comprising:

- 5 a seal having opposite first and second surfaces, a seal lead opening positioned on the seal for passage of the leads through the seal lead opening, a wall projecting outwardly from the seal first surface and extending around the seal lead opening defining a cavity within the wall and adjacent the seal lead opening; and

- 10 a sealant positioned in the cavity sealing the seal lead opening and sealing around leads passed through the seal lead opening.

8. The device of Claim 7, wherein:
 the seal is constructed of a resilient material that enables the seal lead opening to be stretched around leads passed through the seal lead opening.

9. The device of Claim 7, wherein:
 the wall has a periphery that is dimensioned to enable the wall to be inserted into the enclosure lead opening without being constrained.

10. The device of Claim 7, wherein:
 the sealant is positioned only within the wall defining the cavity and does not extend beyond the wall.

11. The device of Claim 7, wherein:
 the wall has a periphery that is dimensioned to enable the wall to be inserted into the enclosure lead opening without the wall contacting the enclosure.

12. The device of Claim 7, wherein:
 the wall projects outwardly from the seal first surface a distance that enables the wall to pass completely through the enclosure lead opening.

13. A motor comprising:

a motor shell and leads that exit the motor shell through a lead opening in the motor shell;

5 a conduit box having a bottom wall and side walls extending at an angle from the bottom wall, the bottom wall and side walls of the conduit box defining an interior of the conduit box, the bottom wall having a conduit box lead opening and the bottom wall being configured and adapted to attach to the motor shell so that the lead opening in the bottom wall is aligned with the motor shell lead opening;

10 a gasket configured and adapted to be positioned between the conduit box and the motor shell to provide a liquid tight seal between the conduit box and the motor shell so that no liquid can enter the conduit box or the motor shell through the conduit box lead opening or the motor shell lead opening, the gasket having opposite first and second surfaces, the first
15 surface having a projection that extends outwardly from the first surface and has a cavity within the projection, the cavity has a lead opening that extends through the gasket and aligns with the conduit box lead opening and the motor shell lead opening so that the leads extend from the motor, through the motor shell lead opening, through the gasket cavity lead opening, through the conduit box lead opening and into the conduit box interior; and
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a sealant residing in the gasket cavity, the sealant forming a liquid tight seal between the gasket cavity and the leads while limiting the sealant from coming in contact with the conduit box lead opening or the motor shell lead opening, the gasket thereby allowing the conduit box to be removed
25 from the motor shell and rotated to an alternate orientation relative to the motor shell and reattached to the motor shell in the alternate orientation without breaking the seal between the leads and the gasket cavity formed by the sealant.

14. The motor of Claim 13, wherein:

the conduit box lead opening is an annular lead opening;

- the gasket projection is an annular wall that forms a cup on the first surface of the gasket, the annular wall being complementary to the
- 5 conduit box annular lead opening; and
- the gasket cavity is an interior of the cup.

15. The motor of Claim 14, wherein:

the annular wall is configured and adapted to extend past the conduit box bottom wall and into the conduit box interior.

16. The motor of Claim 14, wherein:
- the annular wall has an outer diameter, the conduit box annular lead opening has an inner diameter, and the annular wall outer diameter is smaller than the conduit box annular lead opening inner diameter so that a
- 5 gap exists between the annular wall and the conduit box annular lead opening.

17. The motor of Claim 14, wherein:

the gasket cavity lead opening is generally circular and generally concentric with the annular wall.

18. The motor of Claim 14, wherein:

the gasket cavity lead opening has a peripheral edge that is configured and adapted to hold the leads tightly together by the peripheral edge of the gasket cavity lead opening.

19. The motor of Claim 13, wherein:

the sealant is an epoxy.

20. The motor of Claim 13, wherein:

the motor shell is generally cylindrical and at least a portion of the conduit box bottom wall is concave so that the portion of the conduit box bottom surface is complementary to the generally cylindrical motor shell.

21. A method of sealing a lead opening on a motor, the method comprising the steps of:

- 5 providing a motor in a motor shell, the motor having leads extending from the motor, providing a lead opening in the motor shell and positioning the leads through the lead opening in the motor shell;
- 10 providing a conduit box having a bottom wall and an interior, providing a lead opening in the bottom wall;
- 15 providing a gasket with a configuration that is adapted to be positioned between the conduit box and the motor shell to form a liquid tight seal between the gasket and the conduit box and between the gasket and the motor shell, providing the gasket with opposite first and second surfaces and a projection extending outwardly from the first surface, forming a cavity in the projection with the cavity having a lead opening that extends through the gasket first and second surfaces;
- 20 extending the motor leads through the gasket cavity lead opening;
- 25 placing the gasket on the motor shell so that the gasket cavity lead opening is aligned with the motor shell lead opening and so that the leads pass through the gasket cavity lead opening;
- attaching the conduit box to the motor shell so that the gasket is between the conduit box and the motor shell and so that the gasket cavity lead opening is aligned with the conduit box lead opening and the leads pass through the conduit box lead opening and into the conduit box interior; and
- applying a sealant in the gasket cavity so that the sealant forms a liquid tight seal between the leads and the gasket projection.

22. The method of Claim 21, wherein:

- the step of providing a conduit box further comprises providing the conduit box lead opening as an annular lead opening; and
- 5 the step of providing a gasket further comprises providing the gasket projection as an annular wall that is complementary to the conduit box

annular lead opening and that forms a cup on the first surface of the gasket with the gasket cavity being an interior of the cup.

23. The method of Claim 22, wherein:

the step of providing a gasket further comprises providing the gasket projection with a length extending from the first surface to extend past the conduit box bottom wall and into the conduit box interior.

24. The method of Claim 22, wherein:

the step of providing a conduit box further comprises providing the conduit box annular lead opening with an inner diameter and the step of providing a gasket further comprises providing the gasket annular wall with an
5 outer diameter that is smaller than the inner diameter of the conduit box annular lead opening so that a gap exists between the annular wall and the conduit box annular lead opening.

25. The method of Claim 21, wherein:

the step of providing a gasket is further comprised of providing a gasket of resilient, elastic material and with the gasket cavity lead opening dimensioned to hold the leads tightly together by a peripheral edge of the
5 gasket cavity lead opening stretched around the leads.

26. The method of Claim 21, wherein:

the step of applying a sealant is further comprised of applying an epoxy sealant.

27. The method of Claim 21, wherein:

the step of forming a cavity is further comprised of forming the cavity so that the cavity prevents the sealant from contacting the conduit box so that the conduit box may be detached from the motor shell and rotated to
5 an alternate orientation relative to the motor shell and reattached to the motor

shell in the alternate orientation without disturbing the liquid tight seal formed by the sealant.

28. The method of Claim 21, wherein:

the step of providing a gasket further comprises providing the gasket projection with a length extending from the first surface to extend into the conduit box.

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